HELLER EHRMAN WHITE & MCAULIFFE LLP
Sheet 1 of 4
Title. NUCLEIC ACID MOLECULES ENCODING A
TRANSMEMBRANE SERINE PROTEASE 7, THE ENCODED
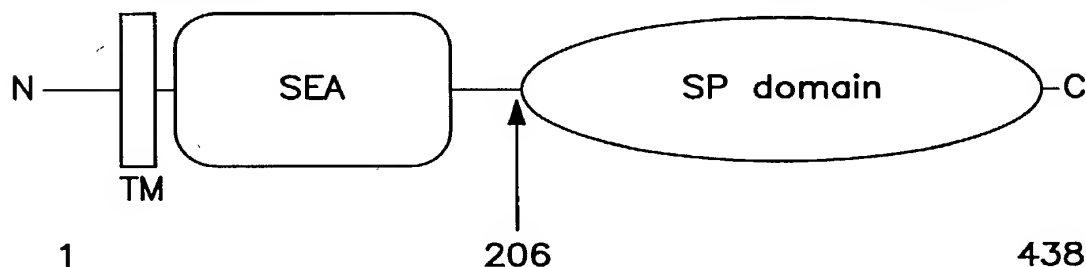POLYPEPTIDES AND METHODS BASED THEREON
Applicant. Edwin Madison et al.
Filed March 13, 2002   Appl. No.: 10/099,700
Examiner. Unassigned   Art Unit· Unassigned
Our Docket No.: 24745-1613

Domain organization and amino acid sequence of MTSP7


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         10          20          30          40          50          60
MMYTPVEFSEAEFSRAEYQRKQQFWDSVRLALFTLAIVAIIGIAIGIVTHFVVEDDKSFY

         70          80          90         100         110         120
YLASFKVTNIKYKENYGIRSSREFIERSHQIERMMSRIFRHSSVGGRFIKSHVIKLSPDE

        130         140         150         160         170         180
QGVDILIVLIFRYPSTDSAEQIKKKIEKALYQSLKTKQLSLTINKPSFRLTPIDSKKMRN

        190         200       ↓ 210         220         230         240
LLNSRCGIRMTSSNMPLPASSSTQRIVQGRETAMEGEWPWQASLQLIGSGHQCGASLISN

        250         260         270         280         290         300
TWLLTAAHCFWKNKDPTQWIATFGATITPPAVKRNVRKIILHENYHRETNENDIALVQLS

        310         320         330         340         350         360
TGVEFSNIVQRVCLPDSSIKLPPKTSVFVTGFGSIVDDGPIQNTLRQARVETISTDVCNR

        370         380         390         400         410         420
KDVYDGLITPGMLCAGFMEGKIDACKGDSGGPLVYDNHDIWYIVGIVSWGQSCALPKKPG

        430
VYTRVTKYRDWIASKTGM*
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↓ = protease cleavage site

FIG. I

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Sheet 2 of 4
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         10        20        30        40        50        60
AGATCAGATGGCGACTGAATAGAAGCTGCCCCAGTCCTGGGTTCATGATGTACACACCTG
TCTAGTCTACCGCTGACTTATCTTCGACGGGGTCAGGACCCAAGTACTACATGTGTGGAC

         70        80        90       100       110       120
TTGAATTTTCAGAAGCTGAATTCTCACGAGCTGAATATCAAAGAAAGCAGCAATTTTGGG
AACTTAAAAGTCTTCGACTTAAGAGTGCTCGACTTATAGTTTCTTTCGTCGTTAAAACCC

        130       140       150       160       170       180
ACTCAGTACGGCTAGCTCTTTTCACATTAGCAATTGTAGCAATCATAGGAATTGCAATTG
TGAGTCATGCCGATCGAGAAAAGTGTAATCGTTAACATCGTTAGTATCCTTAACGTTAAC

        190       200       210       220       230       240
GTATTGTTACTCATTTTGTTGTTGAGGATGATAAGTCTTTCTATTACCTTGCCTCTTTTA
CATAACAATGAGTAAAACAACAACTCCTACTATTCAGAAAGATAATGGAACGGAGAAAAT

        250       260       270       280       290       300
AAGTCACAAATATCAAATATAAAGAAAATTATGGCATAAGATCTTCAAGAGAGTTTATAG
TTCAGTGTTTATAGTTTATATTTCTTTTAATACCGTATTCTAGAAGTTCTCTCAAATATC

        310       320       330       340       350       360
AAAGGAGTCATCAGATTGAAAGAATGATGTCTAGGATATTTCGACATTCTTCTGTAGGCG
TTTCCTCAGTAGTCTAACTTTCTTACTACAGATCCTATAAAGCTGTAAGAAGACATCCGC

        370       380       390       400       410       420
GTCGATTTATCAAATCTCATGTTATCAAATTAAGTCCAGATGAACAAGGTGTGGATATTC
CAGCTAAATAGTTTAGAGTACAATAGTTTAATTCAGGTCTACTTGTTCCACACCTATAAG

        430       440       450       460       470       480
TTATAGTGCTCATATTTCGATACCCATCTACTGATAGTGCTGAACAAATCAAGAAAAAAA
AATATCACGAGTATAAAGCTATGGGTAGATGACTATCACGACTTGTTTAGTTCTTTTTTT

        490       500       510       520       530       540
TTGAAAAGGCTTTATATCAAAGTTTGAAGACCAAACAATTGTCTTTGACCATAAACAAAC
AACTTTTCCGAAATATAGTTTCAAACTTCTGGTTTGTTAACAGAAACTGGTATTTGTTTG

        550       560       570       580       590       600
CATCATTTAGACTCACACCTATTGACAGCAAAAAGATGAGGAATCTTCTCAACAGTCGCT
GTAGTAAATCTGAGTGTGGATAACTGTCGTTTTTCTACTCCTTAGAAGAGTTGTCAGCGA

        610       620       630       640       650       660
GTGGAATAAGGATGACATCTTCAAACATGCCATTACCAGCATCCTCTTCTACTCAAAGAA
CACCTTATTCCTACTGTAGAAGTTTGTACGGTAATGGTCGTAGGAGAAGATGAGTTTCTT

        670       680       690       700       710       720
TTGTCCAAGGAAGGGAAACAGCTATGGAAGGGGAATGGCCATGGCAGGCCAGCCTCCAGC
AACAGGTTCCTTCCCTTTGTCGATACCTTCCCCTTACCGGTACCGTCCGGTCGGAGGTCG

        730       740       750       760       770       780
TCATAGGGTCAGGCCATCAGTGTGGAGCCAGCCTCATCAGTAACACATGGCTGCTCACAG
AGTATCCCAGTCCGGTAGTCACACCTCGGTCGGAGTAGTCATTGTGTACCGACGAGTGTC

        790       800       810       820       830       840
CAGCTCACTGCTTTTGGAAAAATAAAGACCCAACTCAATGGATTGCTACTTTTGGTGCAA
GTCGAGTGACGAAAACCTTTTTATTTCTGGGTTGAGTTACCTAACGATGAAAACCACGTT

        850       860       870       880       890       900
CTATAACACCACCCGCAGTGAAACGAAATGTGAGGAAAATTATTCTTCATGAGAATTACC
GATATTGTGGTGGGCGTCACTTTGCTTTACACTCCTTTTAATAAGAAGTACTCTTAATGG

        910       920       930       940       950       960
ATAGAGAAACAAATGAAAATGACATTGCTTTGGTTCAGCTCTCTACTGGAGTTGAGTTTT
TATCTCTTTGTTTACTTTTACTGTAACGAAACCAAGTCGAGAGATGACCTCAACTCAAAA
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Sheet 3 of 4
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Applicant: Edwin Madison et al
Filed March 13, 2002   Appl No.   10/099,700
Examiner: Unassigned   Art Unit: Unassigned
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     970        980        990       1000       1010       1020
CAAATATAGTCCAGAGAGTTTGCCTCCCAGACTCATCTATAAAGTTGCCACCTAAAACAA
GTTTATATCAGGTCTCTCAAACGGAGGGTCTGAGTAGATATTTCAACGGTGGATTTTGTT

    1030       1040       1050       1060       1070       1080
GTGTGTTCGTCACAGGATTTGGATCCATTGTAGATGATGGACCTATACAAAATACACTTC
CACACAAGCAGTGTCCTAAACCTAGGTAACATCTACTACCTGGATATGTTTTATGTGAAG

    1090       1100       1110       1120       1130       1140
GGCAAGCCAGAGTGGAAACCATAAGCACTGATGTGTGTAACAGAAAGGATGTGTATGATG
CCGTTCGGTCTCACCTTTGGTATTCGTGACTACACACATTGTCTTTCCTACACATACTAC

    1150       1160       1170       1180       1190       1200
GCCTGATAACTCCAGGAATGTTATGTGCTGGATTCATGGAAGGAAAAATAGATGCATGTA
CGGACTATTGAGGTCCTTACAATACACGACCTAAGTACCTTCCTTTTTATCTACGTACAT

    1210       1220       1230       1240       1250       1260
AGGGAGATTCTGGTGGACCTCTGGTTTATGATAATCATGACATCTGGTACATTGTAGGTA
TCCCTCTAAGACCACCTGGAGACCAAATACTATTAGTACTGTAGACCATGTAACATCCAT

    1270       1280       1290       1300       1310       1320
TAGTAAGTTGGGGACAATCATGTGCACTTCCCAAAAAACCTGGAGTCTACACCAGAGTAA
ATCATTCAACCCCTGTTAGTACACGTGAAGGGTTTTTTGGACCTCAGATGTGGTCTCATT

    1330       1340       1350       1360       1370       1380
CTAAGTATCGAGATTGGATTGCCTCAAAGACTGGTATGTAGTGTGGATTGTCCATGAGTT
GATTCATAGCTCTAACCTAACGGAGTTTCTGACCATACATCACACCTAACAGGTACTCAA

    1390       1400       1410       1420       1430       1440
ATACACATGGCACACAGAGCTGATACTCCTGCGTATTTTGTATTGTTTAAATTCATTTAC
TATGTGTACCGTGTGTCTCGACTATGAGGACGCATAAAACATAACAAATTTAAGTAAATG

    1450       1460       1470       1480       1490       1500
TTTGGATTAGTGCTTTTGCTAGATGTCAAGAAGCCCTTCAGACCCAGACAAATCTAATAT
AAACCTAATCACGAAAACGATCTACAGTTCTTCGGGAAGTCTGGGTCTGTTTAGATTATA

    1510       1520       1530       1540       1550       1560
CCTGAGGTGGCCTTTACATACGTAGGACCAAACCCTCTCTACCATGAGGGAAGAAGACAC
GGACTCCACCGGAAATGTATGCATCCTGGTTTGGGAGAGATGGTACTCCCTTCTTCTGTG

    1570       1580       1590       1600       1610       1620
AGCAAATGACAGACAGCACCTATTCCTTACTCACAAGGGAAACTGCTTGTGATACTTCCT
TCGTTTACTGTCTGTCGTGGATAAGGAATGAGTGTTCCCTTTGACGAACACTATGAAGGA

    1630       1640       1650       1660       1670       1680
AATAAGATAAATAAGTGGTTTCCCTCAATTGAAGACAGGAACATCATTTTCCACAGGATA
TTATTCTATTTATTCACCAAAGGGAGTTAACTTCTGTCCTTGTAGTAAAAGGTGTCCTAT

    1690       1700       1710       1720       1730       1740
TGAAGAGCTGCCAGTAATGCCAAAATCTTACCTCATATAATACCTGGAGCATGTGAGATT
ACTTCTCGACGGTCATTACGGTTTTAGAATGGAGTATATTATGGACCTCGTACACTCTAA

    1750       1760       1770       1780       1790       1800
CTTCTAGTGAAAAAGAACAGTCTTCCCTGAAGACTCAGGGCTTCAACATTCTAGAACTGA
GAAGATCACTTTTTCTTGTCAGAAGGGACTTCTGAGTCCCGAAGTTGTAAGATCTTGACT

    1810       1820       1830       1840       1850       1860
TAAGTGGACCTTCAGTGTGCAAGAATGGAGAAGCATGGGATTTGCATTATGACTTGAACT
ATTCACCTGGAAGTCACACGTTCTTACCTCTTCGTACCCTAAACGTAATACTGAACTTGA

    1870       1880       1890       1900       1910       1920
GGGCTTATATCTAATAATACAGAGCACTATCACTAACCTCAACAGTTGACATTTTAAAAG
CCCGAATATAGATTATTATGTCTCGTGATAGTGATTGGAGTTGTCAACTGTAAAATTTTC
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1930        1940        1950        1960        1970        1980
TTTTTAAATGTATCTGAACTTGCTGTTAACACAGTGTTATAACTCAAGCACTAGCTTCAG
AAAAATTTACATAGACTTGAACGACAATTGTGTCACAATATTGAGTTCGTGATCGAAGTC

1990        2000        2010        2020        2030        2040
GAAGCATGTTGTGTTGTTAAGAGCTTTTTCTGATTTATTCTTTAACAGCATCTTGCCATC
CTTCGTACAACACAACAATTCTTCGAAAAGACTAAATAAGAAATTGTCGTAGAACGGTAG

2050        2060        2070        2080        2090        2100
TATATGTTAGTAGCAGTTGGCCCAGAAAGGACAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
ATATACAATCATCGTCAACGGGGTCTTTCCTGTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
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